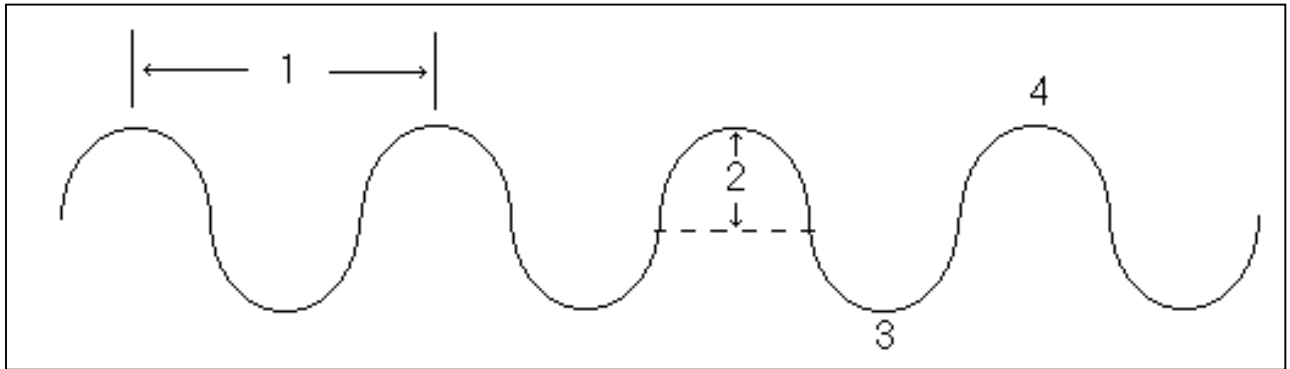


## STUDENT RESPONSE SHEET

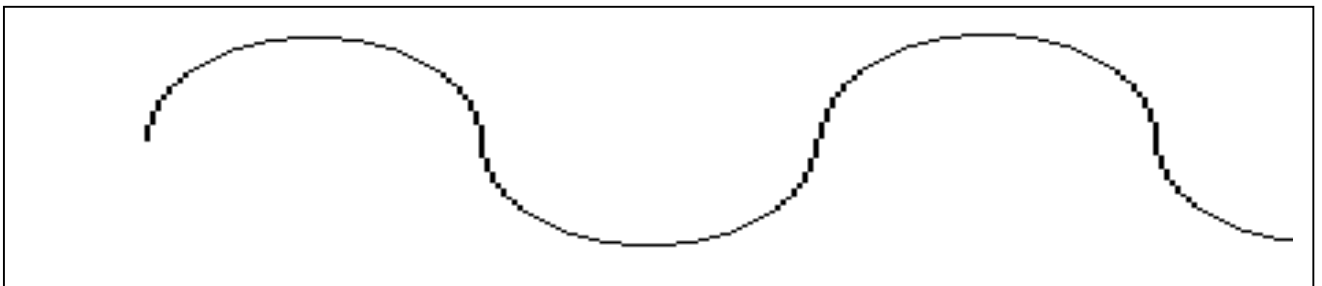
### Activity #1.... An Investigation into Transverse Waves **ANSWER KEY**

- 1-4. In the box below, diagram a typical transverse wave and label the numbered components appropriately.

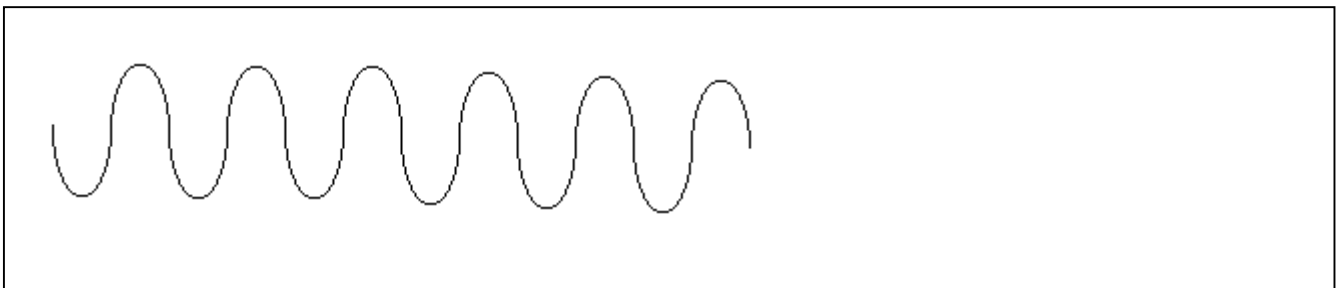


1. wavelength
2. amplitude
3. trough
4. crest

5. In the box below, diagram a transverse wave that has twice the wavelength of the wave diagrammed above.



6. In the box below, diagram a transverse wave that has one-half the wavelength of the wave diagrammed in #1-4 above.



7. While producing about two waves per second, the length of our wave was approximately 60 cm.
8. While producing about four waves per second, the length of our wave was approximately 30 (or ½ the length reported in #7) cm.
9. As the frequency of wave increases, its wavelength decreases.

10. As the wave passes from one end of the spring to another, the string (attached to one coil) moves perpendicularly or at  $90^\circ$  to the direction of the wave,
11. As the wave passes along the spring, the actual coils of the spring do not (do, do not) move along the entire length of the spring.
12. To produce a wave in the spring with twice the amplitude of another, one must snap the spring (with your hand) twice the original distance, or snap it with twice the original force.